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CLAIMS:

1. A gas purge valve comprising a housing formed with an inlet and an outlet, said outlet formed with a valve seating, and a sealing assembly comprising a sealing member displaceable between an open position and a closed position;
5 wherein the sealing assembly is supported by an external support lever mechanism extending outside said housing, to thereby displace the sealing assembly into sealing engagement with said valve seating at the closed position.
2. The gas purge valve according to claim 1 comprising a float member articulated to said sealing assembly within the housing, and being displaceable
10 susceptible to liquid level within the housing.
3. The gas purge valve according to claim 2, wherein the float member is suspended from the sealing assembly.
4. The gas purge valve according to claim 3, wherein the float member is suspended from the sealing assembly by a rigid connecting rod.
- 15 5. The gas purge valve according to claim 4, wherein an end of the connecting rod is pivotally coupled to the sealing assembly.
6. The gas purge valve according to claim 4, wherein the connecting rod is spring-biased to dampen motion of the connecting rod.
7. The gas purge valve according to claim 1, wherein the support lever is
20 coupled to the sealing assembly allowing freedom for the sealing assembly to self align with the valve seating at a closed position.
8. The gas purge valve according to claim 1, wherein the support lever is pre-loaded so as to effect engagement of the sealing assembly with the valve seating.
9. The gas purge according to claim 8, wherein pre-loading of the support
25 lever is adjustable to thereby adjust the force required for sealing the valve.
10. The gas purge valve according to claim 1, wherein there is further provided a pre-loading mechanism for pre-loading the support lever so as to adjust the moment about a pivot end thereof.

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11. The gas purge valve according to claim 10, wherein the pre-loading mechanism comprises an axle attached to the support lever and received within a casing fixedly supported by the housing, a coiled spring having one end thereof engaged with said axle and an opposed end thereof engaged with a tension setting nut rotatable with respect to said axle in a first sense to tension the spring, and in an opposite sense to loosen the spring.
12. The gas purge valve according to claim 11, wherein the tension setting nut is rotatably fixable at different positions so as to allow for adjusting the pre-loading setting.
13. The gas purge valve according to claim 12, wherein the casing of the pre-loading mechanism is water and dirt sealed.
14. The gas purge valve according to claim 1, wherein the support lever is biased in a direction to displace the sealing assembly into sealing engagement with the valve seating.
15. 15. The gas purge valve according to claim 14, wherein the biasing force is adjustable.
16. The gas purge valve according to claim 1, wherein the support arm is fitted with a calibration mechanism to confirm that the sealing member is retained in a normally closed position and opens only upon vacuum within the housing.
- 20 17. The gas purge valve according to claim 1, wherein the support lever is provided with a control mechanism for adjusting the moment of rotation about a pivoted end thereof.
18. The gas purge valve according to claim 1, wherein the support lever is provided with dampening arrangements to dampen displacement of the sealing assembly into the closed or open position.
- 25 19. The gas purge valve according to claim 1, wherein there a suspension arrangement is provided for delaying displacement of the sealing assembly.
20. The gas purge valve according to claim 19, wherein the suspension arrangement comprises a viscous or visco-elastic damping assembly associated with a pivoted end of the support lever.
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21. The gas purge valve according to claim 1, wherein the housing has a frustoconical shape.
22. The gas purge valve according to claim 1, wherein the support lever is received within a water-tight casing.
- 5 23. The gas purge valve according to claim 22, wherein the casing is received within an outlet duct extending from the valve outlet and being in flow communication therewith.
24. The gas purge valve according to claim 23, wherein an outlet opening of the duct is fitted with a screen.
- 10 25. The gas purge valve according to claim 1, for use in conjunction with a sewage system.
26. The gas purge valve according to claim 1, wherein the support lever comprises an indicator for generating indicia corresponding with the state of sealing assembly.
- 15 27. The gas purge valve according to claim 2, wherein the valve outlet is of the combined type comprising a major, kinetic outlet for high flow rate gas flow, and an auxiliary, automatic outlet for low flow rate gas flow.
28. The gas purge valve according to claim 27, wherein the auxiliary outlet comprises an aperture adjoined by an auxiliary valve seating, said auxiliary outlet
20 aperture being substantially less in area than the major outlet aperture; a flexible closure membrane secured at one end to the sealing member of the major outlet and adapted to be biased against said auxiliary valve seating so as to seal said auxiliary outlet aperture; the float member being articulated to an opposite end of said membrane.
- 25 29. The gas purge valve according to claim 28, wherein the auxiliary valve seating has a substantially elongated slit-like shape, communicating at one end thereof with the major outlet aperture.
30. The gas purge valve according to claim 29, wherein the flexible closure membrane adapted for sealing the auxiliary outlet aperture, is integrally formed
30 with the sealing member adapted for sealing the major valve outlet.

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31. The gas purge valve according to claim 29, wherein the opposite end of the closure membrane is articulated to one end of a pivot bar pivotally secured at an opposed end thereof to the sealing member of the major outlet, and articulated to the float member.
- 5 32. The gas purge valve according to claim 31, wherein the float member is coupled to the pivot bar via a connecting member.
33. The gas purge valve according to claim 29, wherein the major outlet sealing member is retained by a support member whereby the sealing member has exposed edges for bearing against the boundaries of the major valve seating.
- 10 34. The gas purge valve according to claim 33, wherein one face of the exposed edges bears against a bedding of the support member, whilst an opposite face thereof is fitted for sealing engagement with the boundaries of the major valve seating.
35. The gas purge valve according to claim 2, wherein the valve outlet
15 comprises first and second outlet apertures respectively bounded by first and second valve seatings, said first aperture being of substantially elongated slit like shape, communicating at one end thereof with the second outlet aperture and being substantially less in area than the second aperture; a flexible closure membrane secured at one end to a sealing member for said second outlet and
20 adapted to be biased against said valve seatings so as to seal said outlet apertures; the float member being articulated to an opposite end of said membrane.
36. The gas purge valve according to claim 35, wherein the sealing assembly comprises a sealing member for sealing engagement with a seating of the major outlet, and a flexible closure membrane secured at one end to said sealing
25 member and adapted to be biased against a seating of the auxiliary valve outlet so as to seal said; an opposite end of said membrane being articulated to the float member.
37. A gas purge valve comprising a housing fitted with an inlet being in flow communication with a float chamber within the housing, and an outlet formed at
30 an upper end thereof; a sealing assembly for sealing said outlet, and a float

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disposed within said float chamber and being attached to the sealing assembly by a rigid link; said sealing assembly being carried at a first end of an external support lever having a second end thereof pivotally attached to the housing.

38. A gas purge valve comprising:

- 5 a housing having a valve inlet and a valve outlet;
- a valve seating defined at said valve outlet;
- a sealing assembly comprising a sealing member adapted for
sealing engagement with said valve seating;
- a float member articulated to said sealing assembly within the
10 housing, and being displaceable susceptible to liquid level within
the housing; and
- an external support lever pivotally secured at a first end to the
housing and having a second end articulated to the sealing
assembly.

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